Amendments to the Claims

Listing of claims:

1. (currently amended) A system for determining the amount of light (EMR) output from an optical fiber bundle including at least one optical fiber interconnected to a light (EMR) source, said system comprising:

at least one parasitic fiber positioned adjacent to said at least one optical fiber for receiving and transmitting light (EMR) received from said at least one optical fiber; and

a detector coupled to said at least one parasitic fiber for measuring the amount of light (EMR) transmitted thereby[[.]],wherein said detector is coupled to said light (EMR) source and includes circuitry for adjusting the intensity of said light (EMR) source in response to the intensity of light detected in said parasitic fiber.

2. (cancelled)

3. (Currently amended) The system of claim [[2]] 1, wherein said fiber bundle includes a plurality of optical fibers joined by a ferrule.

4. (Original) The system of claim 1, wherein said optical fiber and said parasitic fiber have the same index of refraction.

5. (Original) The system of claim 1, wherein said optical fiber has a first index of refraction and said parasitic fiber has a second index of refraction.

6. (Original) The system of claim 1, wherein said detector is positioned adjacent to said light (EMR) source.

7. (Original) The system of claim 1, wherein said detector is positioned at an end of said optical fiber bundle opposite from said light (EMR) source.

8. (Original) The system of claim 1, further comprising a plurality of parasitic fibers distributed throughout said optical fiber bundle.

9. (Original) A method of maintaining the output level of a fiber optic bundle including at least one optical fiber interconnected to a light (EMR) source, said method comprising the steps of:

positioning at least one parasitic fiber adjacent to said at least one optical fiber;

detecting the intensity of light (EMR) transmitted by said parasitic fiber; and

adjusting the intensity of said light (EMR) source to maintain the output level of said fiber optical bundle based on the intensity of light (EMR) transmitted by said parasitic fiber.

10. (Original) The method of claim 9, wherein said step of adjusting the intensity of said light (EMR) source to maintain the output level of said fiber optical bundle comprises the steps of:

inputting the intensity of light (EMR) transmitted by said parasitic fiber into a feedback circuit; and

proportionally adjusting the intensity of said light (EMR) source based on a comparison of the intensity of light (EMR) transmitted by said parasitic fiber and the intensity of light (EMR) transmitted by said optical fiber bundle.